



RESEARCH SUMMARY

Date Compiled: January 2018

Key Takeaways from Included Research

- Nebraska fell from 12th place among all states to 13th place for overall health, with one of the major factors preventing Nebraska placing more highly is the state's relatively poor ranking for excessive drinking among adults – 6th worse among all states.
- High retail availability of alcohol, tobacco, and processed foods are a contributor to poor health in neighborhoods, especially in underserved areas, with problematic sales of alcohol adding additional public safety risks (violence, property crime, etc.)
- In a study of victims of violence at UK emergency departments, perpetrator alcohol intoxication was particularly relevant in targeted violence (i.e. bias or hate crimes). Thus, tackling excessive alcohol consumption can be an important strategy to reduce this and other kinds of violence
- Alcohol consumption damages the DNA in human stem cells by way of acetaldehyde (a product of alcohol breaking down in the system), adding more insight into the mechanisms behind alcohol's role as a causal risk factor for several cancers
- People with a history of excessive drinking (as measured by a screening test) found alcohol ads to be more appealing and considered drinking in the ads to be more "responsible. Stricter regulations may be needed to protect heavy alcohol users from the effects of alcohol advertising.

AMERICA'S HEALTH RANKINGS: 2017 REPORT

December 2017

America's Health Rankings® presents its 28th Annual Report, providing new insights to the longest-running assessment of the nation's health on a state-by-state basis. The 2017 report looks at 35 measures covering behaviors, community and environment, policy, clinical care and outcomes data. The report also serves as a benchmark for states – and the nation – to measure progress, identify emerging trends and drive action for improving public health. This year, the report reveals that the nation is facing serious public health challenges, including rising rates of premature death and an uneven concentration of key health care providers.

United Health Foundation, through America's Health Rankings platform, helps policy-makers, public health officials, researchers and communities improve the health, well-being and health care at the local, state and national level.

Source: *America's Health Rankings*

Free full text: https://assets.americashealthrankings.org/app/uploads/ahrannual17_complete-121817.pdf

Nebraska-specific info.: <https://www.americashealthrankings.org/explore/2017-annual-report/state/NE>

HEALTHY STORES FOR A HEALTHY COMMUNITY: WHAT DOES IT MEAN FOR ALCOHOL SALES?

January 2018

Overview:

There is a lot of talk these days about “food deserts” where people don’t have sufficient access to healthy foods such as fresh fruits and vegetables. Many of these are in low income areas. For example, the US Department of Agriculture states that 23 million people live in low-income areas that are more than a mile from a supermarket. Unfortunately, many of these same neighborhoods have ready access to alcohol, tobacco, and fast food.

Over the years, various problems have been identified with stores that sell alcohol. Some of these are:

1. **Products that appeal to youth and street drinkers:** High alcohol content products such as 90 proof liquor, 24 oz. tall cans (“black out in a can”), and cheap drinks favored by street drinkers. In some states, some of these products are banned in areas frequented by “public inebriates.”
2. **Advertising and promotion practices:** These include over-exposing youth to alcohol ads by placing promotions near toys or candy and inducing high volume sales by offering deep discounts or special coupons. Some states prohibit coupons or discounting for alcohol.
3. **Security issues:** Some stores are open after midnight with only one or two staff members. These can become targets for robberies. Advertising signs sometimes cover most of the front windows which shields the view of criminal activity inside the store. Some states and municipalities regulate the percentage of window space that can cover the view as well as lighting
4. **Neighborhood nuisances such as litter, drug dealing in the area.** Regulations sometimes include the parking area as part of the licensed premises and require regular maintenance. Others use “good neighbor agreements” as a way for the licensee and community to work together on improvement measures.

Source: *Healthy Alcohol Marketplace*

Full free text at: <http://healthyalcoholmarket.com/wordpress/>

INJURY RESULTING FROM TARGETED VIOLENCE: AN EMERGENCY DEPARTMENT PERSPECTIVE

December 2017

Abstract

Background

Hate crimes – those perpetrated because of perceived difference, including disability, race, religion, sexual orientation or transgender status – have not been studied at the point of the victim’s hospital emergency department (ED) use.

Aim

To investigate the frequency, levels of physical harm and circumstances of targeted violence in those seeking treatment at EDs in three UK cities.

Method

In a multimethods study, face-to-face semi-structured interviews were conducted with 124 adult ED attenders with violent injuries. Victim and perpetrator socio-demographics were recorded. Patient narratives about perceived motives and circumstances were transcribed, uploaded onto NVivo for thematic analysis.

Results

Nearly a fifth (23, 18.5%) of the injured patients considered themselves to have been attacked by others motivated by hostility or prejudice to their 'difference' (targeted violence). Thematic analyses suggested these prejudices were to appearance (7 cases), racial tension (5 cases), territorial association (3 cases) and race, religious or sexual orientation (8 cases). According to victims, alcohol intoxication was particularly relevant in targeted violence (estimated reported frequency 90% and 56% for targeted and non-targeted violence, respectively).

Conclusions

Our findings support a broader concept of hate victimisation and suggest that emergency room violence surveys could act as a community tension sensor and early warning system in this regard. Tackling alcohol misuse seems as important in this as in other forms of violence perpetration.

Source:

Sivarajasingam, V., Read, S., Svobodova, M., Wight, L., & Shepherd, J. (2017). Injury resulting from targeted violence: An emergency department perspective. *Criminal Behaviour and Mental Health*.

Additional coverage:

Medical Xpress: [Alcohol acts as igniter of hate crimes](#)

ALCOHOL AND ENDOGENOUS ALDEHYDES DAMAGE CHROMOSOMES AND MUTATE STEM CELLS

January 2018

Abstract

Haematopoietic stem cells renew blood. Accumulation of DNA damage in these cells promotes their decline, while misrepair of this damage initiates malignancies. Here we describe the features and mutational landscape of DNA damage caused by acetaldehyde, an endogenous and alcohol-derived metabolite. This damage results in DNA double-stranded breaks that, despite stimulating recombination repair, also cause chromosome rearrangements. We combined transplantation of single haematopoietic stem cells with whole-genome sequencing to show that this damage occurs in stem cells, leading to deletions and rearrangements that are indicative of microhomology-mediated end-joining repair. Moreover, deletion of p53 completely rescues the survival of aldehyde-stressed and mutated haematopoietic stem cells, but does not change the pattern or the intensity of genome instability within individual stem cells. These findings characterize the mutation of the stem-cell genome by an alcohol-derived and endogenous source of DNA damage. Furthermore, we identify how the choice of DNA-repair pathway and a stringent p53 response limit the transmission of aldehyde-induced mutations in stem cells.

Source:

Garaycochea, J. I., Crossan, G. P., Langevin, F., Mulderrig, L., Louzada, S., Yang, F., et al. (2018). Alcohol and endogenous aldehydes damage chromosomes and mutate stem cells. *Nature*.

Additional coverage:

Reuters: [How alcohol damages stem cell DNA and increases cancer risk](#)

The Guardian: [Alcohol can cause irreversible genetic damage to stem cells, says study](#)

PERCEPTIONS OF ALCOHOL ADVERTISING AMONG HIGH RISK DRINKERS

January 2018

ABSTRACT

Background: Individuals who are particularly vulnerable to the influence of alcohol advertising, such as youth, need special protections, yet little research has been done to determine if other vulnerable groups exist. Secondary data analysis was conducted to determine if perceptions of alcohol advertising differ between groups based on their alcohol use and whether the definition of “vulnerable” should be expanded beyond demographic categories. **Methods:** Students (n = 326) from 2 U.S. colleges viewed 5 alcohol ads and rated them using a scale designed to detect violations of the alcohol industry's self-regulated marketing codes. Individuals with a history of excessive alcohol use, as measured by the Alcohol Use Disorders Identification Test (AUDIT), were considered potentially vulnerable to alcohol advertising and were compared against individuals without a history of excessive alcohol use. Hierarchical linear modeling was used to determine between-group differences in 4 dependent variables (ad appeal, perceived alcohol consumption, perceived excessive drinking, and perceived responsible drinking). All models were adjusted for age, race, ethnicity, sex, and parental alcohol use. **Results:** AUDIT risk categories were positively associated with ad appeal ($p < 0.001$), the amount of alcohol perceived to be consumed ($p < 0.01$), and perceptions of responsible drinking ($p < 0.05$). There was no significant association with perceptions of excessive drinking. **Conclusions:** Individuals with a history of heavy alcohol use perceived greater alcohol consumption in alcohol ads but perceived this consumption, which often met the definition for binge drinking, to be responsible. Stricter regulations may be needed to protect heavy alcohol users from the effects of alcohol advertising.

Source:

Noel, J. K., Xuan, Z., & Babor, T. F. (2018). Perceptions of alcohol advertising among high risk drinkers. *Substance Use & Misuse*, 1-8.